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EXAMINER

BOYLE, ROBERT C

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

***Attachment to Advisory Action***

1. Applicant's response filed July 15, 2009 has been fully considered but is not persuasive.
2. In support of an argument that there is no teaching or suggestion to modify the fluoropolymers of Curtin or Tatemoto with the end groups of Schreyer (see Remarks filed February 26, 2009: page 4; Remarks filed July 15, 2009: page 2, lines 7-11, page 4, lines 4-7), Applicant submits two technical literature references and reiterates that the combination of a fluoropolymer with acid/acid salt groups and  $-CF_2H$  endgroups was surprisingly stable to OH radicals.
3. Regarding the two references submitted by Applicant, Curtin et al. "Advanced materials for improved PEMFC performance and life" Journal of Power Sources, 131 (2004) 41-48 ("Power Sources") and Pianca et al. "End groups in fluoropolymers" Journal of Fluorine Chemistry 95 (1999) 71-84, Applicant's arguments are not persuasive. Applicant uses the two documents to illustrate that the  $-CF_2H$  endgroup is not resistant to OH radicals. This argument is moot as the stability of  $-CF_2H$  endgroups to OH radicals is not claimed, and Schreyer provides sufficient motivation to combine because terminating the polymer in a highly stable  $-CF_2H$  endgroup adds to the thermal stability and corrosion resistance of the polymer, see Schreyer: columns 1-2, lines 69-24.

4. In response to applicant's argument that one of ordinary skill in the art would not combine Schreyer with Curtin or Tatemoto because of the stability of  $-\text{CF}_2\text{H}$  endgroups in the presence of OH radicals, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

5. In this instance, it would have been obvious to combine the fluoropolymer in Curtin or Tatemoto with the endgroups taught in Schreyer because terminating the polymer in a  $-\text{CF}_2\text{H}$  endgroup adds to the thermal stability and corrosion resistance of the polymer, see Schreyer, columns 1-2, lines 69-24.

6. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., stability to OH radicals) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. It is noted that Applicant states: "The fluoropolymer with  $\text{SO}_3\text{M}$  group must be resistant to OH radical." (Remarks filed July 15, 2009, page 4, line 16). Resistance to OH radicals is not a claimed limitation, nor is unexpected results at issue.

8. It is noted that Applicant states: "CF<sub>2</sub>H group is clearly unstable in the field of Curtin." (Remarks filed July 15, 2009, page 5, line 1). It is unclear whether Applicant refers to the non-patent literature of Curtin published in the Journal of Power Sources ("Power Sources") or the prior art used in the 103 rejection, Curtin, US 6,150,426 ("Curtin '426"). Under the assumption that Applicant is referring to Curtin '426, this is a conclusory statement and not persuasive.

9. Curtin '426 relates to solid and liquid compositions containing particles of highly fluorinated ion exchange polymer having sulfonate functional groups (Curtin '426: column 1, lines 10-15). It has not been shown that a -CF<sub>2</sub>H group is unstable in the field of ion exchange polymers. Therefore, Applicant's argument is not persuasive.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT C. BOYLE whose telephone number is (571)270-7347. The examiner can normally be reached on Monday-Friday, 9:00AM-5:00PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

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